

APR 2 1 2011

## 3.0 510(k) Summary

Page \_\_1 \_\_ of 2

Prepared: January 14, 2011

Purpose for Submission: To Introduce a new plate system (2.4mm Variable Angle LCP Volar Rim

Radius System) into interstate commerce with the following indication: "skeletally mature adolescents and the following adolescent distal radius fractures: intra-articular fractures exiting the epiphysis, intra-articular fractures exiting the metaphysic, physeal crush injuries, and any injuries which cause

growth arrest to the distal radius."

**Sponsor:** Synthes (USA)

Christopher Hack, Esq. 1301 Goshen Parkway West Chester, PA 19380

(610) 719-6940

**Device Name:** 2.4mm Variable Angle LCP Volar Rim Distal Radius System

Classification: Class II, §888.3030 – Single/multiple component metallic bone fixation

appliances and accessories, HRS

Class II, §888.3040 - Smooth or threaded metallic bone fixation fastener

Predicate Device: Synthes 2.4 LCP Volar Column Distal Radius Plating System -

(K102694)

Synthes Volar Distal Radius Plate - (K953644)

Synthes Variable Angle Locking Compression Plate – (**K071184**) Synthes Locking Distal Radius Plating System – (**K102694**) Synthes Stainless Steel Modular Hand System - (**K030310**) Synthes Small Titanium Wrist Fusion Plate – (**K023987**)

**Device Description:** The 2.4mm Variable Angle LCP Distal Radius Plates are used with a

range of 2.4 mm variable angle locking screws, 2.4 mm cortex screws, and 2.7 mm cortex screws. These new plates incorporated variable angle locking technology. The Variable Angle LCP Volar Rim Distal Radius Plates are designed as low profile plates, designed to minimize soft tissue irritation by featuring a low contoured plate profile with countersunk screws, rounded edges, and polished surfaces. The plates feature both variable angle locking screw holes in the head and shaft and elongated variable angle combination holes along the shaft only. The plates are offered in 6- and 7-hole head configurations each with two additional contourable wing tabs with screws holes to provide even greater variability in screw placement for additional fragment capture and fracture

reduction.

Intended Use: The 2.4mm Variable Angle LCP Volar Rim Distal Radius Plates are

indicated for fixation of complex intra- and extra-articular fractures of the

distal radius and other small bones in adults, skeletally mature

adolescents, and the following adolescent distal radius fractures: intraarticular fractures exiting the epiphysis, intra-articular fractures exiting the metaphysis, physeal crush injuries, and any injuries which cause growth

arrest to the distal radius.

Substantial Equivalence:

The features of the subject components are substantially equivalent to the predicate devices based on similarities in intended use and design.



Mechanical testing demonstrates substantial equivalence of the subject components to the predicate devise in regards to mechanical strength. In addition, the intended use, manufacturing methods, packaging, and sterilization of the predicate and subject components are identical.

The subject and predicate devices are made from stainless steel and commercially pure titanium. Functional and mechanical testing demonstrates the comparable mechanical & functional properties of the subject 2.4mm VA-LCP Volar Rim Distal Radius System to the predicate devices.

Testing conducted to support the substantial equivalence for the 2.4mm VA-LCP Volar Rim Distal Radius Plates was aimed to assess the fatigue strength of the subject device. Finite element analysis was used to determine the worst case construct and dynamic loading testing was used to confirm that the subject device construct is substantially equivalent to the predicates device construct.





Food and Drug Administration 10903 New Hampshire Avenue Document Control Room W-O66-0609 Silver Spring, MD 20993-0002

APR 2 1 2011

Synthes USA % Christopher Hack 1301 Goshen Parkway West Chester, PA 19380

Re: K110125

Trade/Device Name: 2.4mm Variable Angle LCP Volar Rim Distal Radius System

Regulation Number: 21 CFR 888.3030

Regulation Name: Single/multiple component metallic bone fixation appliances and

accessories

Regulatory Class: Class II Product Code: HRS, HWC Dated: November 2, 2010 Received: November 3, 2010

Dear Mr. Hack:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must

comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <a href="http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm">http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm</a> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <a href="http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm">http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm</a>.

Sincerely yours,

Mark N. Melkerson

Director

Division of Surgical, Orthopedic and Restorative Devices Office of Device Evaluation Center for Devices and Radiological Health

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Enclosure



## 2.0 Indications for Use

510(k) Number (if	known): <u>K110125 (pg 1/1)</u>
Device Name:	Synthes (USA) 2.4mm Variable Angle LCP Volar Rim Distal Radius Plates
Indications for Use	
	The 2.4mm Variable Angle LCP Volar Rim Distal Radius Plates are intended for
	fixation of complex intra- and extra-articular fractures and osteotomies of the distal
	radius and other small bones in adults, skeletally mature adolescents, and the
	following adolescent distal radius fractures: intra-articular fractures exiting the
	epiphysis, intra-articular fractures exiting the metaphysis, physeal crush injuries, and
	any injuries which cause growth arrest to the distal radius.
Prescription Use _ (Per 21 CFR 801.1	
(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)	
Concurrence of CDRH, Office of Device Evaluation (ODE)	
	(Division Sign-Off) Division of Surgical, Orthopedic, and Restorative Devices  510(k) Number K1/0125
	510(k) Number